

Docket No. 296895US0PCT



ITW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Frank-Martin PETRAT, et al.

SERIAL NO: 10/594,995

GAU: 1745

FILED: September 29, 2006

EXAMINER:

FOR: NANOSCALAR SILICON PARTICLES IN NEGATIVE ELECTRODE MATERIALS FOR USE IN LITHIUM-ION BATTERIES

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☐ Attached is a list of applicant's pending application(s), published application(s) or issued patent(s) which may be related to the present application. In accordance with the waiver of 37 CFR 1.98 dated September 21, 2004, copies of the cited pending applications are not provided. Cited published and/or issued patents, if any, are listed on the attached PTO form 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

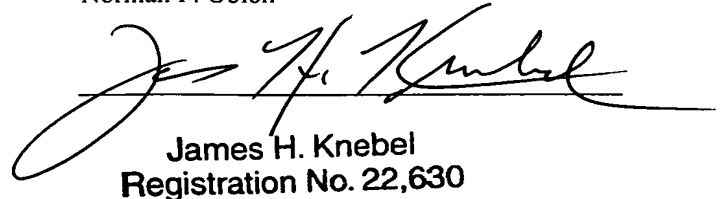
- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

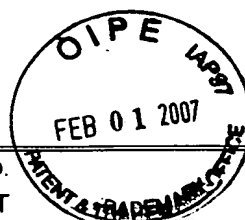


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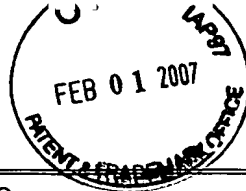
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Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 296895US0PCT		SERIAL NO. 10/594,995	
LIST OF REFERENCES CITED BY APPLICANT				APPLICANT Frank-Martin PETRAT, et al.			
				FILING DATE September 29, 2006		GROUP 1745	
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)							
	AA	José L. TIRADO, "Inorganic materials for the negative electrode of lithium-ion batteries: state-of-the-art and future prospects", MATERIALS SCIENCE AND ENGINEERING, R40, No. 3, February 14, 2003, Cover page and pages 103-136.					
	AB	J. O. BESENHARD, et al., "Will advanced lithium-alloy anodes have a chance in lithium-ion batteries?", JOURNAL OF POWER SOURCES, Vol. 68, 1997, Pages 87-90.					
	AC	S. BOURDERAU, et al., "Amorphous silicon as a possible anode material for Li-ion batteries", JOURNAL OF POWER SOURCES, Vols. 81-82, 1999, Pages 233-236.					
	AD	H. BUQA, et al., "RECENT IMPROVEMENTS IN ELECTROCHEMICAL PERFORMANCE OF GRAPHITE ELECTRODE FOR LITHIUM-ION BATTERIES", ITE LETTERS ON BATTERIES, NEW TECHNOLOGIES AND MEDICINE, Vol. 4, No. 1, 2003, Pages 38-43.					
	AE	Nikolay DIMOV, et al., "Carbon-coated silicon as anode material for lithium ion batteries: advantages and limitations", ELECTROCHIMICA ACTA, Vol. 48, 2003, Pages 1579-1587.					
	AF	"Determination of the specific surface area of solids by gas adsorption using the BET method", GERMAN STANDARD, May 2003, 39 pages (whole document).					
	AG	Jun YANG, et al., "Sub-Microcrystalline Sn and Sn-SnSb Powders as Lithium Storage Materials for Lithium-Ion Batteries", ELECTROCHEMICAL AND SOLID-STATE LETTERS, Vol. 2, No. 4, 1999, Pages 161-163.					
	AH	Bo GAO, et al., "Alloy Formation in Nanostructured Silicon", ADVANCED MATERIALS, Vol. 13, No. 11, June 5, 2001, Pages 816-819.					
	AI	J. GRAETZ, et al., "Highly Reversible Lithium Storage in Nanostructured Silicon", ELECTROCHEMICAL AND SOLID-STATE LETTERS, Vol. 6, No. 9, 2003, Pages A194-A197.					
	AJ	Robert A. HUGGINS, "Alternative materials for negative electrodes in lithium systems", SOLID STATE IONICS, Vols. 152-153, 2002, Pages 61-68.					
	AK	San-Cheng LAI, "Solid Lithium-Silicon Electrode", THE ELECTROCHEMICAL SOCIETY, Pages 1196-1197.					
	AL	D. LARCHER, et al., "Si-containing disordered carbons prepared by pyrolysis of pitch/polysilane blends: effect of oxygen and sulfur", SOLID STATE IONICS, Vol. 122, 1999, Pages 71-83.					
	AM	Hong LI, et al., "A High Capacity Nano-Si Composite Anode Material for Lithium Rechargeable Batteries", ELECTROCHEMICAL AND SOLID-STATE LETTERS, Vol. 2, No. 11, 1999, Pages 547-549.					
	AN	M. J. LINDSAY, et al., "Al-based anode materials for Li-ion batteries", JOURNAL OF POWER SOURCES, Vols. 119-121, 2003, Pages 84-87.					
	AO	Jianjun NIU, et al., "Improvement of Usable Capacity and Cyclability of Silicon-Based Anode Materials for Lithium Batteries by Sol-Gel Graphite Matrix", ELECTROCHEMICAL AND SOLID-STATE LETTERS, Vol. 5, No. 6, 2002, Pages A107-A110.					
	AP	Randall N. SEEFURTH, et al., "Investigation of Lithium Utilization from A Lithium-Silicon Electrode", J. ELECTROCHEM. SOC., Vol. 124, August 1977, Pages 1207-1214.					
	AQ	A. M. WILSON, et al., "Lithium Insertion in Carbons Containing Nanodispersed Silicon", J. ELECTROCHEM. SOC., Vol. 142, No. 2, February 1995, Pages 326-332.					
	AR	Z. S. WEN, et al., "High capacity silicon/carbon composite anode materials for lithium ion batteries", ELECTROCHEMISTRY COMMUNICATIONS, Vol. 5, 2003, Pages 165-168.				<input checked="" type="checkbox"/> Additional References sheet(s) attached	
Examiner						Date Considered	
*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							



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	AAA	W. J. WEYDANZ, et al., "A room temperature study of the binary lithium-silicon and the ternary lithium-chromium-silicon system for use in rechargeable lithium batteries", JOURNAL OF POWER SOURCES, Vols. 81-82, 1999, Pages 237-242.					
	AAB	J. YANG, et al., "Small particle size multiphase Li-alloy anodes for lithium-ion-batteries", SOLID STATE IONICS, Vol. 90, 1996, Pages 281-287.					
	AAC	Corina LUPU, et al., "X-ray and Neutron Diffraction Studies on "Li ₄ Sn", INORGANIC CHEMISTRY, Vol. 42, No. 12, 2003, Pages 3765-3771.					
	AAD	Keith D. KEPLER, et al., "Li _x Cu ₆ Sn ₅ (0<x<13): An Intermetallic Insertion Electrode for Rechargeable Lithium Batteries", ELECTROCHEMICAL AND SOLID-STATE LETTERS, Vol. 2, No. 7, 1999, Pages 307-309.					
	AAE	Martin WINTER, et al., "Insertion Electrode Materials for Rechargeable Lithium Batteries", ADVANCED MATERIALS, Vol. 10, No. 10, 1998, Pages 725-763.					
	AAF	Martin WINTER, et al., "Electrochemical lithiation of tin and tin-based intermetallics and composites", ELECTROCHIMICA ACTA, Vol. 45, 1999, Pages 31-50.					
	AAG	J. YANG, et al., "Si/C Composites for High Capacity Lithium Storage Materials", ELECTROCHEMICAL AND SOLID-STATE LETTERS, Vol. 6, No. 8, 2003, Pages A154-A156.					
	AAH						
	AAI						
	AAJ						
	AAK						
	AAL						
	AAM						
	AAN						
	AAO						
	AAP						
	AAQ						
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